

690-008859-US (PAR)

IP/981210

D/99253

Patent Application Papers Of:

David L. Salgado

Russ Roberts

Dennis Ulrich

Gary R. Kern

For: Method and Apparatus for Managing Software Copyright  
Years in a Multiple Platform Electronic Reprographics  
System

Method and Apparatus for Managing Software Copyright  
Years in a Multiple Platform Electronic Reprographics  
System

BACKGROUND OF THE INVENTION

1. Field of the Invention

The present invention relates to a multiple platform architecture data reporting system and, more particularly, to automatic reporting and displaying of information.

2. Prior Art

Referring to Fig. 1, there is shown a perspective view of a document processing apparatus 10. The apparatus 10 could be any suitable type of document processing apparatus, such as a copier, a facsimile machine, a scanner, a computer printer, or a multifunction device having two or more functions. The apparatus may be comprised of multiple platforms where each platform contains its own processor and software. In addition, each platform manages and maintains its own software copyright information.

The copyright to a software program subsists from the time the program is fixed in a tangible medium and does not explicitly require a display of copyright (Berne Convention Implementation Act of 1988, Pub. L. No. 100-568 (1988)). However, to protect against inadvertent forfeiture of a copyright, display of copyright is still desirable for pre-Berne works and in some non-Berne Convention countries. In addition, notice of copyright can prevent an infringer, having access to a copy bearing the notice, from claiming innocence as a defense.

When notice is required or desired, updated software generally includes the year of the update in addition to the year of the original work. Failure to notice the copyright year for the original work could result in forfeiture of the copyright if the software update, when combined with the original work, is not considered sufficient. Thus, as a precautionary measure, copyright years are noticed for the original software and for software updates to the original software. Systems comprised of multiple platforms, each with multiple software packages and software updates, may require notice of all original copyright years as well as notice of copyright for all software updates and other software attributes.

#### SUMMARY OF THE INVENTION

A multiple platform architecture data reporting system for managing attribute data. The system comprising: a system manager for collecting attribute data from multiple platforms; and a user interface connected to the system manager for displaying the collected attribute data to a user.

A method for managing attribute data in a multiple platform architecture. The method comprising the steps of: polling at least two platforms for attribute data; collecting the attribute data from the at least two platforms in response to the step of polling; and displaying the collected attribute data on a user display.

A software copyright information managing system for managing software copyright data in a multiple platform

electronic architecture, the system comprising: a system controller for collecting the software copyright data from multiple platforms; memory for storing the software copyright data collected by the system controller; and a user interface connected to the system controller for displaying the software copyright data from the memory to a user.

#### BRIEF DESCRIPTION OF THE DRAWINGS

The foregoing aspects and other features of the present invention are explained in the following description, taken in connection with the accompanying drawings, wherein:

Fig. 1 is a perspective view of a conventional document processing apparatus;

Fig. 2 is a schematic diagram of a copyright management system incorporating features of the present invention;

Fig. 3 is a flowchart of a method for managing copyright data using the system shown in Fig. 2;

Fig. 4 is an exploded flowchart of the method for managing copyright data shown in Fig. 3; and

Fig. 5 is an exploded flowchart of an alternate method for managing copyright data shown in Fig. 3.

#### DETAILED DESCRIPTION OF THE PREFERRED EMBODIMENT

Referring to Fig. 1, there is shown a perspective view of a document processing apparatus 10 similar to a document processing apparatus incorporating features of the present invention. Although the present invention will

be described with reference to the embodiments shown in the drawings, it should be understood that the present invention can be embodied in many alternate forms of embodiments.

5 Referring now to Fig. 2 there is shown a block diagram of one embodiment of copyright management system 21 incorporating features of the present invention. The copyright management system 21 is generally intended to be used for managing software copyright information and  
10 other software attribute data in a document processing apparatus such as described above with reference to Fig. 1 (e.g.: a copier, a facsimile machine, a computer printer, a scanner, or a multifunction device). The copyright management system 21 generally comprises a  
15 system manager 22, at least two platform controllers 23a, 23b, memory 25, and a user interface 27.

The system manager 22 generally comprises any suitable control module designated as the system manager. The system manager coordinates the system's platform-wide  
20 operations (such as power ON) and owns system level attributes. One attribute is the comprehensive copyright years list for all the platforms that comprise the system.

The platform controllers 23a, 23b generally comprise any  
25 suitable module designated as the platform manager. Each platform controller maintains a list of the software copyright years relevant to the software on its platform. Each platform controller 23a, 23b passes the copyright information to the system manager 22 at power ON or when  
30 initiated by a user request from the system manager.

Memory 25 comprises any suitable data storage medium capable of storing information data, such as copyright years as reported by the platform controllers. Memory may be volatile or non-volatile.

5 The user interface 27 generally comprises a display for displaying copyright information and a user input device for providing instruction to the system manager. The user interface display may be any suitable medium such as a screen or hardcopy printout for displaying copyright  
10 information and any suitable user input device such as a keyboard.

Referring also to Fig. 3 there is shown a flowchart of one method for managing copyright information using the system shown in Fig. 2. In short, the system polls 30a,  
15 collects 30b, and displays 30c, to manage copyright information for the system. These steps are further illustrated with reference to Figs. 2 and 4. At power ON 40a, each platform controller 23a, 23b is polled 30a and reports its attribute data (i.e., copyright data,  
20 licenses data or any other suitable type of software data) to the system manager 22 in response 40c to the system manager's polling. The system manager stores 40d the attribute responses in memory 25. The system manager 22 merges 40e the data reported by each of the platform  
25 managers 23a, 23b, in this example, with its current set of system attribute data held by the system manager 22 in memory 25. The system manager 22 then displays 30c the differing attribute information as an attribute for the compilation of the various platform modules. For example,  
30 if platform 23a reports as an attribute a copyright years list of 1994, 1995, and 1996 and platform 23b reports a copyright years list of 1995, 1996, 1997, and 1998 then the

system manager will store the lists as reported in memory and display the copyright years 1994, 1995, 1996, 1997, and 1998. In addition, any platform not reporting 40c its copyright years list is continued to be polled until the platform responds or until a predetermined amount of time has elapsed at which time the system manager reports a failure message to the user interface display. Alternatively, the system manager could display the software copyright years from each platform as reported by the platform or store the data for later retrieval.

Referring to Fig. 5, at any point past power ON a user can initiate 50a a copyright years request via the user interface. The user can select 50b either polling 50d the platform controllers 23a, 23b, or retrieving 50c the previous response stored in memory 25 by the system manager 22. The system manager 22 then displays 50g the differing copyright years information on the user interface display as described above. Alternatively, the system manager could display the software copyright years from each platform as reported by the platform or store the data for later retrieval.

It should be understood that the foregoing description is only illustrative of the invention. Various alternatives and modifications can be devised by those skilled in the art without departing from the invention. For example, the invention could have two platform controllers as represented by 23a and 23b in Fig. 2 or the invention could have more than two platforms. Accordingly, the present invention is intended to embrace all such

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